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MIMULUS HYBRIDUS

PAINTED FOR JAMES VICK SEEDSMAN.

THE BRETTLISHO CO 214 & 116 FULTON ST N.Y.

OCTOBER, 1887.

FLOWERS AND FRUITS were in fine display at the late New York State Fair, held in this city. Never, to our knowledge, did Floral Hall present so fine an appearance, and much credit is due to officers, and especially the Superintendent in charge of this department, for the handsome exhibits. The progress of horticulture in this State was signally noted by the superior plants shown. Though every available inch of space devoted to the purpose was occupied, and more needed, yet we hope to see the day when the competition in this department will be far greater, and the exhibitors more numerous. Additional space can be prepared if it is required, and it is time that Floral Hall should be wholly occupied with throngs of exhibitors, obliging the fruit to be arranged in an adjoining hall. The exhibits can be brought out, and, we believe, the present management will have the energy to call out for grander shows than have ever before been witnessed at similar gatherings. The crowds that continually surrounded the tables in Floral Hall showed plainly that it was the favorite department, and the greatest interest centered in it. The pot plants comprised fine displays of zonal Pelargoniums, fancy Caladiums, Gloxinias, Ferns, Palms and Orchids, and of many other kinds of exotics. Some of the finest blooming specimens of Orchids, from the establishment of WILLIAM S. KIMBALL, were shown, as, also, some very handsome Nelumbiums blooming in tanks of water. Of cut flowers there was a large display, comprising Roses, Lilies, Gladiolus, Dahlias, Asters, Stocks, Phloxes, Petunias, Verbenas, Annual Chrysanthemums, Tropæolums, and a great variety of the finer kinds of garden annuals. Floral pieces, in great variety of design and exquisite in finish, were shown by a considerable number of exhibitors. The circular central staging was raised so that the handsome Ferns and Palms stood up in full sight ftom all parts of the hall. The arrangements were so well made that all plants and flowers could be seen to advantage, and even examined closely, and yet without risk of injury, however great the crowd. The fruit exhibits occupied tables around the hall on all sides. Monroe, Niagara Ontario and Seneca Counties were particularly well represented by the fruits. ELLWANGER & BARRY made a grand show of Pears and Grapes, also fine displays of Peaches, Plums and Quinces. Most of the first prizes for Apples went to Niagara County, though for a few kinds they went to other Counties in the western part of the State. It was a disappointment to see many inferior specimens in some of the exhibits, thus indicating, undoubtedly, the poor average

character of the crops; for no one at all skilled in selecting would willingly bring forward so many specimens on which the codlin moth had done its work. It can not be that these growers had taken any very effective measures to prevent injuries from this insect, certainly not by spraying with Paris green, which is the surest remedy to employ. If we can judge of the character of the whole crop by the specimens shown by a number of exhibitors, it must rule at a low standard. At a season like this, when Apples sell readily from two to two dollars and fifty cents a barrel, for fruit of good quality, the loss by the moth must be a serious one, and the necessary care and labor to produce perfect fruit would be amply paid for. Fruit of all kinds has ripened remarkably early this fall, and there is little hope of successfully carrying fruit through the winter, except that which is quite sound and perfect, consequently, the late keeping varieties need to be selected very closely. Can this be done profitably? The question with orchardists now is, how the Apple orchard can be made to pay? What with non-bearing years, occasional depredations of aphides causing injury to the extent of the loss of a crop and weakness of the tree the succeeding year, the constant loss by the codlin moth, loss by other insects and by unfavorable weather, and the orchardist must be one of great business capacity who can surmount all the difficulties and can find a profit to place to the credit of his orchard. But one thing is very certain, it cannot be done by letting things take their course and accepting what comes. The fertility of the orchard must be kept up by liberally manuring in some way, and how to do this most economically is a question each one must solve; insects must be watched for and destroyed, the trees must be regularly and properly pruned, not by severe operations that will seriously tax their vitality, but by gently and continuously controlling their growth so as to distribute their fruit-bearing wood over a large surface and allowing a full exposure to light and air. The fruit from such trees will be smooth, of good size and free from blemishes. Such was the character of some of the best Apples that were shown at the fair, and we believe it will be found that the orchards that produced them are profitable. The amateurs' exhibits of Pears were few, and on the professional list only the one already mentioned. Perhaps we should not be warranted from these facts in making the statement, whieh, however, we certainly believe to be true, that there is now but little interest in this State in raising Pears for market. The Pear grower has even more to contend with than the Apple orchardist. Fine dishes were shown of Bartlett, Beurré d' Anjou, Beurré Clairgeau, Beurré Bosc, Duchesse d' Angoulème, Flemish Beauty, Seckel, Sheldon, Lawrence and Winter Nélis. A handsome dish of a new variety, the Barseckel, was shown by C. M. Hooker & Son. This is a Pear of medium size, of the general form of the Bartlett, skin greenish with a slight cheek in the sun, flesh juicy, sprightly and fine grained. This variety is a cross between the Bartlett and Seckel, as its name indicates, and was originated by Jacob Moore, who also produced, by cross-fertilization, the Brighton and the Diamond Grapes, as well as other fine fruits. The display of native Grapes was very large and fine, and visitors lingered long over the attractive plates of varieties of red, white and blue. The Grape apparently interests more people than any other fruit at this season of the year, and at any season, unless, perhaps, the Strawberry. Very handsome specimens were shown of Worden, Concord, Delaware, Barry, Monroe, Dutchess, Rochester, Brighton, Niagara, Wilder and Pocklington. Of white Grapes, the Pocklington appeared the largest and noblest, and the Dutchess the most attractive and tempting, with the exception of the Diamond, which, in appearance, is very superior, as it also is in quality Ellwanger & Barry's Rochester, a red variety, appeared to fine advantage, a close, compact, shouldered bunch of good size, with berries somewhat larger than those of the Delaware. Many fine plates of Delaware were presented. Among the black varieties none appeared to better advantage in form and size of cluster and berry than the Worden; Barry, a black of the Rogers' varieties, is very handsome.

The show of vegetables was a fair one, though the number of exhibitors was smaller than usual, a result probably due to the dry weather which had so long prevailed. In regard to the other depart-

ments at the fair it may be said that they were all good, and some of them unsurpassed. The management is to be congratulated upon its success in bringing about much needed reforms in the conduct of the fair, not the least of which was the prevention of all wine, beer and spirit sales on the ground. Perfect good order prevailed, and no intoxicated person was to be seen, nor indecent language heard. The attendance, though large, was interfered with somewhat by unfavorable weather. On the whole, it was a show that was extremely creditable to all connected with it, and incites us to hope much for it in the future.

EARLY HARVEST BLACKBERRY.

This variety of Blackberry ripened on our grounds, this year, the eighth of July. It is represented in the accompanying engraving about one-half size in length and breadth of fruit, which is oval and symmetrical in form. It bears abundantly, and

EARLY HARVEST BLACKBERRY.

is of good quality, and these characteristics, with its early ripening, make it a valuable fruit for the market-grower. It carries well and appears handsome when exposed, so that it finds a ready sale. It undoubtedly has a future before it as a market fruit.

MIMULUS HYBRIDUS.

As pot plants that can be easily raised we regard the hybrid tiger varieties of the Mimulus with especial favor. The flowers are of a peculiar and handsome shape, resembling somewhat, in this respect, the Gloxinia, than which, however, the Mimulus plants are far more easily raised, and also give a greater amount of bloom. For spring and summer blooming the seeds can be sown any time in the winter months, and the plants be brought along to commence to bloom in May, or later, according to their condition. The soil in which the seed is to be sown should be fine and sandy, in shallow, well drained pans or pots. Scatter the seed thinly over the surface of the soil, which has been previously moistened, and then give a sprinkling of sand and press it down with a smooth block of wood, and cover the pan with a pane of glass. Give a warm place, and the young plants will soon appear. As soon as large enough, prick them out singly, and keep them growing until sufficiently strong to prick out singly into small pots. When well established they should be accustomed to a cooler atmosphere, so that they will be suited with the ordinary temperature of the greenhouse, and as soon as it will do, with a cold-frame. The plants grow rapidly, and if large

sized plants are wanted they must not be allowed to get root-bound, but be shifted as often as necessary to give them plenty of room. When once the plants are root-bound they will begin to bloom. While growing and flowering the plants require plenty of water, which is provided for them in saucers to stand in. A soil made of turfy loam, well rotted manure, leaf-mold and some sand is a suitable one. The main stem and stronger branches can be pinched back during growth in order to cause a greater number of shoots to start out and thus increase the blooming capacity. The branches can be given suitable support by tying them to short sticks. The plants do rather the best in shade, or a partial shade, and when in bloom will be suited with a north or east window in the house. They are good basket plants, or vase plants on a shady side of the house.

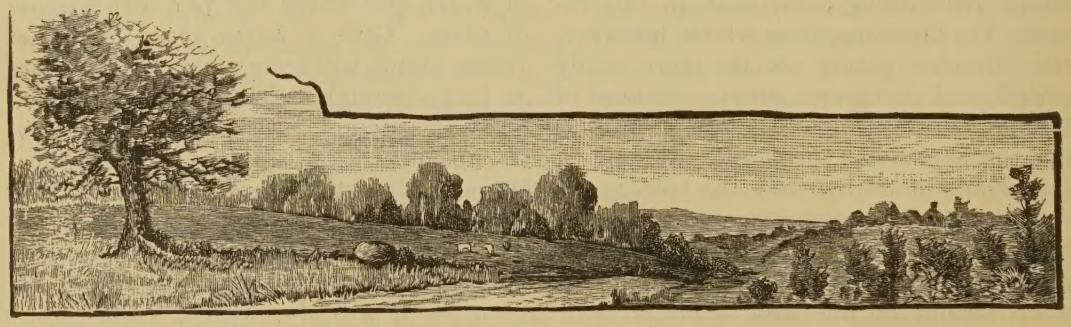
These hybrid varieties of Mimulus have been produced by crossing the garden varieties of Mimulus luteus with M. cupreus, which was introduced from the Chilian Andes not much more than twenty-five years ago. Whoever, to whom these plants are strangers, will undertake their cultivation, will find himself amply repaid by their rarity, and their beauty and abundance of bloom.

SUMMER CLIMBING PLANTS.

The newly introduced climber, Mina lobata, which was described and illustrated in our issue of February last, proves to be a wonderfully vigorous plant, sending out numerous branches full of leafage, enabling one to produce with it a thick, heavy screen. It grows rapidly, and by the last of July had already covered a large surface. We regret, however, to announce that it does not bloom, probably requiring more heat than our northern latitude affords. As the past summer was one of unusual heat, and it has failed to bloom, we can have no hope for it in the future as a blooming plant out of doors. It will prove serviceable for screens and for covering walls. Whoever wishes to see it in bloom must give it a place in the greenhouse.

The Japan Hop, Humulus Japonicus, is another rapid grower, and in foliage is not inferior to the Mina. By means of a wire trellis a summer screen can be provided with these plants wherever desired. In order to raise them up as early as possible in the season it is best to start the seeds about two months before it will answer to set the plants out, which, in this region, would be about the middle of May. By starting the seeds by the middle of March there would be time to give the plants a fair start and harden them off before planting out.

Ipomœa Bona-Nox, the Moon Flower, is an enormous grower, and by setting good plants early in the season, in good soil, one may expect a height of twenty feet, or more, to be realized if it is desirable to train directly upwards. By pinching in the ends of the shoots a greater number of branches can be forced out, and the plant thus be trained laterally. It commences to bloom about the first of August, and continues nightly to open its great, white, sweet-scented flowers. It is a curiosity, to say the least.



The Moorman Plum, sent to me for trial as an iron-clad variety, proves very tender, having killed to the snow line each winter since planting.

The Switzer Apple, one of the "Government Russians," imported by the United States Department of Agriculture in 1869–70, shows itself a thorough iron-clad and a remarkably fine grower, both in nursery and orchard. It is a large and handsome red Apple, and the tree is a heavy bearer. With me, on a light soil, it drops a good deal of its fruit in the course of the season, but carries a fair crop to maturity. Grown in Northern Vermont and Quebec, it keeps until the holidays or later. At the last winter fruit meeting of the Montreal Horticultural Society, Mr. CHARLES GIBB said of the Switzer, "It is not an acid Apple; it has no weak points about it, and it has the special merit that it is not quickly perishable. It is of good, fair, even size. It has what is called 'reinette' flavor." Mr. R. W. SHEPHERD, JR., said, "I agree with Mr. GIBB. The Switzer is in quality much more like Fameuse than any Russian I have ever tasted." To compare any Apple to Fameuse is a rare compliment from a Canadian. The Switzer is much larger than Fameuse, and entirely free from that Apple's chief fault, spotting.

Last winter, so long and severe, coming after a most bounteous crop of fruit in New England, tested the hardiness of many Apples severely. All along its northern range, in Southern Maine, New Hampshire and Vermont, Baldwin trees are reported in very bad condition, many limbs being dead, and others barely leafing out and making no growth. Just north of the Baldwin range the same effects are noted upon the Northern Spy, Fameuse, Rhode Island Greening, Golden Russet of Western New York, Red Astrachan, Ben Davis, Blue Pearmain, Westfield, Seek-no-Further, and other sorts usually regarded as hardy there. In the region of iron-clads, still farther north, Wolf River, Sops of Wine, Bailey Sweet, Grand Sultan, and even Wealthy, where the trees had carried heavy crops, are decidedly "the worse for wear," while nearly all root-grafted and low-budded Fameuse are killed. The same variety top-grafted on Tetofsky seems unhurt.

Scott's Winter is an Apple which is coming strongly to the front as an iron-clad long keeper of merit. Our local paper, the Newport *Express*, of August 10th, says: "Last Tuesday, CUSHMAN GILBERT brought in the proof that we can have good fruit the year round in this country. He had some fine Yellow Transparent Apples just ripe, and also Scott's Winter of last season's growth, which were still sound and of good flavor. With the Apple season continuing the year round we ought to be well content." Professor BUDD, of Iowa, speaks highly of it, while at the winter meeting in Montreal, above referred to, in reply to the question, "What about Scott's Winter?" Mr. SHEPHERD said, "I suppose my trees are about ten years old. So far they have been very satisfactory; the tree is very hardy; its quality is very good. It is a little acid, but it tones down about the middle of January and gets to be of very good quality. It keeps until spring without any difficulty." Mr. GIBB added, "I would like to endorse what Mr. SHEPHERD says about Scott's Winter. Its keeping qualities are good; it is a little under size, but I have nothing better of its kind." I may add that Scott's Winter is the only keeping Apple that is carrying a full crop with me this year. I think it is quite as hardy as the Wealthy and as productive. In good land, especially if thinned, it is a full medium in size, but when not properly cared for and allowed to overbear, small.

The Russian Mulberry must have the credit of being really by far the hardiest of the Mulberries. It is but little injured by our severest winters. Its fruit does not amount to much, but it makes a pretty small tree, and if silk culture ever gets a foothold in America it will extend the possibility of producing that commodity some two hundred miles further north than heretofore.

The Siberian Apricot, also, is a decided advance in hardiness over other Apricots, but it kills to the snow line here in the hardest winters. I think it would succeed well in Southern New England, and although the fruit is small it is quite

good, and I have no doubt that seedlings may be grown much larger and better than any we have at present. It appears to have the merit of not blooming so early as to be caught by the frost, and so gives a sure crop, while the common Apricots rarely give any fruit in New England.

Chinese Multiplier Onion.—Some fifteen years ago, or more, I noticed in a friend's garden a surprisingly productive kind of Multiplier Onion, producing large and handsome bulbs which seemed to cover the ground all over. I had many times tried various Potato Onions, but always found them much too small and unproductive for profit. My friend told me he had received some bulbs of this Onion from California a few years before, from a relative, who said they were brought in to the San Francisco market by Chinese gardeners. Like everything that is very prolific, this Onion requires extremely rich soil to show its merits, which, however, are decided. It is very little attacked by the maggot, arrives at marketable size considerably ahead of set Onions, and is very easily kept in a dry cellar if spread upon broad shelves, not over four inches deep. The small bulbs when planted make single large ones, the mediums divide into five or six, while the large ones produce a circle of large ones as large as a dinner plate, crowned in the center by a cluster of a dozen or so of small ones. Lately, I am dropping out of Onion culture, and have none of this sort now; but it has been considerably distributed, and possibly it may have come under the notice of VICK'S MAGAZINE.

The Tomato rot is getting to be as bad a disease as its congener, the Potato rot. I cannot discover that it is affected either way by high or low culture, the fruit of plants on a dry sand bank being attacked equally with those in a rich garden. It is destroying a large proportion of my crop this year, and I hope we may find some effective remedy.

I cannot do anything with Pears, unless the new Russians succeed as I hope, but I should like to call the attention of yourself and readers to several Vermont seedlings, originating in the farm of the now aged BENJAMIN MACOMBER, of Grand Isle, Lake Champlain. One of them, the Grand Isle, is described in DOWNING'S Third Appendix, page 62, and I learn that WILLIAM M. RUPEST, of Seneca, N. Y., has undertaken the propagation of another, the Macomber, a variety of small size but of wonderful beauty and the highest quality. It is a bright yellow with an equally bright carmine blush. Its size is about that of Seckel, the flavor is rich, vinous and slightly acid.

T. H. HOSKINS, M. D. *Newport, Vt.*

ANEMONE JAPONICA.

This lovely, late-blooming plant, is, perhaps, too little known. All summer it has stood a plain, unattractive plant, whose dark green leaves possess no particular beauty in themselves. But, lo, as autumn approaches, what a transformation! Almost imperceptibly and without notice a new movement has taken place. Sturdy stems, as straight as an arrow, but supple and graceful as a willow wand, shoot up, and round-eyed buds show here and there, from whose green lapping appear snowy promises of future loveliness.

As early as the last of August, and rarely later than the middle of September, they begin to open. Upon each long, slender stem sways a snowy blossom some two inches in diameter, like nothing so much save, perhaps, our own native Dogwood of the forest, which it closely resembles in form and coloring. Perfectly hardy, it will bear the severe test of snow and sleet and bitter freezing, and present itself the next season as fresh and green as before. Shooting stems to some eighteen inches in height, it will bear a great number of blossoms and outlast even the most enterprising of late flowering plants, showing its blossoms in perfection until late November. No plant is better calculated for cemetery decoration, and were it better known it would be more generally cultivated. Its flowers are most lovely for bouquets, and are largely sought after, as their peculiar shape and color make them most desirable. Among these plants number the A. Japonica alba, or white blooming, and rubra or rose color. My own garden has owned them for many years.

H. K.

SOMETHING ABOUT THE CYCLAMEN.

The genus Cyclamen, in Europe commonly called Sow-bread, from the fact that the acrid stems are greedily eaten by swine, is a near relative of the Primrose. Beside the beautiful favorite flower of the window garden and greenhouse, the Persian species, through which it is, perhaps, known more widely than any other, the genus contains a quite lengthy list of hardy kinds not so widely disseminated. By English growers of fine Alpine plants these are much prized, and well they may be, for there is, as a whole, no more attractive group in the whole range than that comprised in this.

CYCLAMEN HEDERÆFOLIUM.

The necessaries for success in open air culture are protection from dry, cutting winds, a rich, friable soil, good drainage, covering in the winter, still bearing in mind that because some species are hardy is no reason why they should thrive in exposed situations.

For planting in rockwork, not too high, in warm, shady borders, they are of much value, and a choice collection in full bloom is a sight not easily forgotten. The most luxuriant growth in their native haunts is noticeable among broken rocks, under the shade and friendly protection of low bushes and the hill copses. While, in general, with high culture plants are improved in point of blooming and habit of growth from the original type, the conditions of growth are essentially the same as in the old form, and to this the Cyclamen is no exception.

CYCLAMEN NEAPOLITANUM.

There are two general classes or divisions made, regulated as to time of flowering, viz.: the fall-blooming section, of which Cyclamen Africanum, C. hederæfolium, (Ivy-leaved Cyclamen,) C. Neapolitanum and C. Pyrenaicum are good representatives, and the spring flowering class, prominent among which are Cyclamen Atkinsii, C. Coum, C. repandum and C. vernum.

CYCLAMEN VERNUM.

Though the growing of Cyclamen in the open air may not be so desirable or practicable in this country as in the old world, we can expect them, nevertheless, to stand as much frost as the English Primrose, hence will survive with the same amount of winter protection.

With out-door cultivation undesirable, pot culture may be resorted to with success, providing the same period of rest be given as would be had if growing in open

ground. High culture and careful selection have brought the Persian Cyclamen to a near state of perfection, nearly all the shades and colors known in the different species at the present day are to be found in the numerous varieties, as well as improved size of floret. Their culture is not difficult, the most important points being a light rich soil, plenty of sunlight and moisture during the growing season, and a cool place before starting into growth. Many plant. in open ground in May, lift and pot in September for the winter.

CYCLAMEN COUM.

Tolerably true reproduction from seeds can be counted upon if the plants are kept from cross fertilization when in flower, while to secure a good per centum in germinating sow as soon after gathering as possible.

Contributors to American flower-shows should do all in their power to promote the Cyclamen to a more prominent place than it now occupies, for were its true merits more widely known our windows during the late fall, winter and early spring months would be more frequently seen enlivened by its presence. FISKE.

AN HONEST PROTEST.

It would be amusing to read some of the "twaddle" written about ways of money-making for women, if it were not for the consciousness one has when reading it that there are doubtless many women who are anxious to do something by which they can earn something, who will take stock in what is said, and who, perhaps, will believe that the writer speaks from personal knowledge, and, acting on this belief, will be induced to invest money in enterprises in which there is no chance of success. So much of this sort of writing is being done now-a-days that I feel called upon to take up a cudgel against it, out of regard for those for whom it is written.

I am the friend of every woman who has to work to gain a living, or to help gain one, and I would do everything in my power to help such persons. But when they come to me for advice about matters, I believe it is best to be candid with them. If they say, "I want to go into flower-raising as a means of making money; how shall I go at it to make it pay?" I have too great a regard for them, and my own reputation as a man of good sense, to advise them to embark in such an enterprise without some experience among flowers, and some knowledge of what is required in their culture. If a a young lady were to come to me and say, "Miss So-and-so is making money by teaching music. I want to make some in the same way, but I don't know anything about music. How shall I go to work at it to make a success of the undertaking?" I would be ridiculous if I were to advise her to go to work and attempt to carry out so foolish a plan. And yet, a woman who does not know anything about music stands just as good a chance of being successful, financially, as a music teacher, as a woman who knows nothing about the cultivation of flowers does of being successful as a florist.

But there are women who profess to be anxious to help other women who give advice just as silly and harmful as such advice would be. I have in mind an article in a magazine which ought to have had too much regard for its reputation to have given place to such nonsense, (it seems to me that an editor with sensible ideas ought to have been able to see the absurdity of the whole thing,) in which women were advised to undertake the renovation of old orchards. The article went on to say that there were many orchards of this class through

the country, and the owners of them had suffered them to fall into disuse because they had not received the care they required, and on this account they had ceased to pay. The writer suggested that it would be a good idea for women with a small sum of money at their disposal to rent such orchards, and go to work at them, pruning, cleaning, fertilizing, and the like, for money could be made in the operation. They would soon begin to bear good crops, and there was "money in fruit." Any one who has ever had charge of an orchard would laugh at such advice. Such persons would understand the immense amount of work the undertaking would require, work not one woman in a hundred could perform, and the outlay of money that would be required, and the patient waiting which must be borne before there was any return for the expenditure of capital and labor. And then, such person would say, "It wouldn't pay, anyway." And they would be right. It would be doing things on the principle that some women are actuated by when they "make over" dresses; they spend as much money on the "making over" as it would cost to get a new dress, and when the renovation of the old garment is effected they have—nothing but an old dress after all.

But it wasn't this article that gave me my text. My wrathfulness and combativeness were aroused by reading one of a series of papers on "Hints on Money-making for Women," in a prominent paper published in an Eastern city. I have no doubt that the editor of the paper supposed the advice given was practical and sensible; if she had not, the article would never have found place in the columns of that periodical, which has a reputation for being sound and trustworthy, and this reputation helps to make the article in question all the more dangerous.

The article in question starts out in this way: "When it is remembered that women who live in the country in a sort of genteel poverty find it extremely difficult to make money in any way that will not compromise them, and that these unpretending papers do not profess to show any royal road to wealth, an interest may be created in various small industries that might otherwise appear too insignificant to notice."

This sentence gives the key-note of the whole article. It does not advise work for work's sake, because it is honorable and praiseworthy, but as a means of tiding one over the shoals of "genteel poverty." Because raising flowers for sale seems to the mind of the writer less "compromising" as regards gentility of the impoverished sort, she recommends it as preferable to other methods by which money can be made by this unfortunate class of women to whom her advice is offered.

After some remarks about the ease and certainty with which money can be made by cultivating flowers in the garden, for cutting from, to sell to florists in the cities—in which absurd statements are made, as any one can easily satisfy herself by making such inquiries as are suggested, of any city florist—she goes on to advise the erection of small greenhouses in which to grow flowers for sale, and says: "But the greatest stand-by for the raiser of flowers for cutting is the old Calla. Though a tropical plant, it does not require a high temperature; it stipulates for only as much sunshine as can be obtained from northern skies, and a constant supply of water. It is a steady-going, business-like plant, yielding, on the whole, the best returns of any flower that blooms in-doors." From this, what idea would the ignorant, would-be grower of flowers for sale get regarding this plant? Simply that it would flourish under circumstances that would be sure death to comparatively hardy plants. Those who know anything about it know that it requires a warm place to flower well. Unless it can have a warm air to grow in, with plenty of warmth at the roots, it will not blossom. And yet she says all that it requires is what sunshine it can get and plenty of water.

Then she goes on to say, "A small greenhouse devoted to Callas alone would be a profitable investment; the building could be put up very cheaply by an ordinary carpenter. For the cost of a greenhouse, $25 or $30 would build a very respectable lean-to, with second-hand sashes." Think of a greenhouse for commercial purposes, at the North, which could be built for that sum. Ask some practical florist about it. O, ye women, who may try to convince yourselves that this woman knows what she is talking

about, and get laughed at for your verdancy. From what she says about "second-hand sashes," one would suppose that such sashes were always at hand. I presume they would be after a woman had taken her advice and had had one season's experience in growing flowers for sale, according to her directions. Every one embarking in the enterprise would want to sell her sashes at the beginning of the next season in order to realize what she could from the foolish venture, and thus it would be an easy matter to find the "second-hand sashes" ready for the next dupe.

And, "In view of these facts, a small greenhouse devoted entirely to Callas, would prove far more profitable than if stocked with a variety of plants. Violets and Bouvardias will thrive in the same temperature, and as they are very desirable flowers for cutting it might be well to admit a fair proportion of them." Think of that, O, florist; Callas and Bouvardias and Violets growing and flourishing in the same temperature, and bewail the ignorance which you have been laboring under heretofore, in thinking that a Violet can hardly ever be coaxed into bloom in a house in which Callas do well. Any one who knows any thing about these plants knows that a Bouvardia would soon die in the temperature of a house in which Violets could be made to bloom. A Calla and a Bouvardia might be made to grow tolerably well together, but they have nothing in common with the Violet, and in trying to grow the three in the same house for flowers, you would get none from either. The Violet must be grown in houses expressly adapted for it, if you would make it profitable for winter flowering. To deny this would be to show one's utter ignorance of the requirements of the plant. Ask any florist—and florists know what they are about—and they will tell you that whoever gives such advice as does this writer is not capable of giving advice on floricultural matters, and the presumption is, that one who would offer such advice on this subject is not to be trusted on other subjects.

Such a little greenhouse as she says could be built for $25 or $30, might accommodate one hundred plants of the Calla large enough for flowering. Such plants would probably cost at least twenty-five cents each. Here is an expenditure of $25 for stock. Other expenses would bring the outlay, the first year, up to at least $40. This, with the cost of the house, would involve an expenditure of $65 to $70. Let us assume that each plant yields five flowers during the season—and that is more than can be depended on—and you have five hundred blossoms. These might possibly be sold so that the owner of the house would realize five cents each, or $25 from an investment of $65 or $70.

I am inclined to think that the genteel poverty which this writer, with fine theories, prescribes a remedy for, would be considerably aggravated by taking her advice. The fact of it is, a greenhouse worthy the name cannot be built for any such sum as she names. It would be nothing more than a large window, and the advantages of a real greenhouse would be conspicuous by their absence. And it would be impossible to grow Callas or Bouvardias in such a window without a regular supply of heat, and it could not be so arranged that this heat could be secured without an apparatus expressly for furnishing it. It is true that these plants might be grown with some degree of success in a large window connected with the living-room, but success, under such conditions, could not be depended on, and one does not want to invest so much money with the hope of realizing from the investment on the strength of a possibility. There would be scarcely more possibility of success than probability.

It will be seen that the advice given by this writer is dangerous, as I have said, because it is based on nothing more substantial than the theory of a person who advertises her utter ignorance of what she is talking about, when the matter is looked into from a standpoint of facts and business. Even if what she says about the possibilities of such an undertaking were true, the foolishness of the advice she gives comes out when it is taken into consideration that it is given to persons who know nothing about the culture of plants. The carrying out of the scheme pre-supposes an ability on the part of any one to embark in floriculture without any previous knowledge of it, and make a success of it "from the word, go." Ask any old florist what he

thinks about that. The fact is, no one can grow flowers with the success which is absolutely necessary to make it a profitable business, without learning how to do it. You must experiment; there is no short cut in this direction, and whoever tells poor persons that they can make money by going into this business without knowledge and experience, and induces them to make the attempt, ought to be indicted for robbery.

I have no patience with persons who will write such stuff. It "makes me mad" to read it, for there is a possibility that some inexperienced persons will think there is something practical in the scheme and lose money by trying to carry out the writer's ideas. But no one who has an atom of business sense—which is another name for common sense—would go into this business without first consulting florists, who don't work from theory, but from hard fact, and what they would learn from them would be pretty certain to shake their belief in the trustworthiness of this woman who gives instructions in money-making.

EBEN E. REXFORD.

BULBS FOR SUMMER GARDENS.

"Why, Auntie, it's all for winter blooming; don't anybody care for flowers in the summer now?"

This is what my little niece asked, the other day, as she laid down a very beautiful and elaborate florist's catalogue, and I think the half-regretful query is echoed by many amateurs, who fly from the heat of city homes to country residences, and long for every delight of change and rest, cool shade and soft coloring which country life can give them, and by those who, for the first time, find the cultivation of flowers within their reach, or those who, either on account of trouble or expense, have only summer gardens.

Perhaps these much slighted individuals may find some comfort in the knowledge that there is not one among the veteran window gardeners' beauties and novelties that they cannot bloom with even greater success in the summer. Florists and experienced cultivators say that "any body knows how to treat plants in the summer," and so you are left to see your bedding plants run riot, while you, in disgust, fling away scores of books and papers filled with directions for winter gardening, when, if only a few of the quips and cranks of plants and seeds had been told you, you might have saved much time, trouble and money.

The failure of many amateurs to raise fine plants is a result of their carelessness in selecting or preparing the soil. To go out in the garden where "the soil surely must be rich and well pulverized," and fill up pots and boxes, is so much less trouble than to properly prepare it. Almost all plants, except Roses, love plenty of leaf-mold, and if you will season it for them with about an equal quantity of good garden loam, and enough sand to make it light and porous, and a sprinkling of wood ashes to brighten their colors, they will gratefully and liberally repay you with blossoms. To keep their feet warm through the winter and to hurry them up in the spring, it is best to fill the bottom of the lawn beds with a layer of fertilizer from barn or stable.

Now, in autumn time, you will need to plant the bulbs which will bloom for you so faithfully through next summer's heat. To my thinking, no class of plants repay one so well and so surely for the trouble taken as bulbs of any kind, and especially for summer blooming, as the moisture and nutriment contained in their own plump scales make them, to a certain extent, independent of broiling heat and pitiless drought,

Here, at the South, we can safely plant bulbs, for blooming the next year, any time between August and the middle of November, but in the cooler climates it is best not to delay to too late a time. If your winter home is in the city, you can choose and plant bulbs now, before going back to it, tucking them snugly into their winter beds, and feeling assured that when you return in the spring they will have a glad welcome ready for you. What a treat the florists send us in the shape of catalogues. Even if your stock is full, and you have no more money to buy with, it is a delight to look over the beautiful things and plan and select for what you would buy if you had

the money, or what you surely will have as soon as you get it. I agree with somebody who said, not long since, that it is an unspeakable relief to find anything in a florist's catalogue that you do not want. In the autumn catalogues you are likely to be greeted first by the Hyacinths, and these are the very things you want. Get a variety of them, as many as you can afford, for they combine a profusion of bloom with exquisite beauty and fragrance, and they bloom before anything else here, in North Carolina. Any garden soil will do for them, but a little elevation or a raised bed must be given them on account of drainage, as water standing on them, or too much moisture, causes them to rot. They like a porous soil best, and tuck them in with a top-dressing blanket of manure or leaves. Mine start so early that to protect them from frost I cover them with pine boughs till frosts are over. It Is strange that cutting or bruising Hyacinth leaves will so quickly injure the bulb, while you can cut all the flowers you like, and must cut them before they wither; but it is a very nice arrangement, I think, for this reason you must let the leaves ripen for at least two weeks after Hyacinths have bloomed.

Every garden and cemetery ought to abound with Lilies of the Valley. They are as hardy as any bulb can possibly be. They love a partially shaded spot, and plenty of leaf-mold and sand; and for the little trouble of planting and none at all afterwards, will bloom profusely.

Crocuses are too bright and gay to leave out of the list, and they look like early butterflies dotting the lawn grass; if you think the soil is moderately rich drive down a stake about six inches deep, drop in a bulb and cover, scattering them about in the grass irregularly.

Tulips I cannot say so much about, because I could never get more than one year's bloom from them before the mice and moles ate them up; but a bed of them in bloom is a mass of glowing, royal color that no other flower can equal. I know that they do not care for a very rich soil, that they love plenty of sand mixed with their diet, that they are perfectly hardy, that if you begin with the cunning little Duc Van Thols and come down through the list to Late Tulips, choosing some of each, you can have them in bloom from first of April till June, and that if you have time and patience enough to drive stakes or shingles about an inch apart around the bulbs you can keep the mice and moles away, but as I never expect to attain this growth in grace, more I cannot tell you, until I am rich enough to buy a fresh lot every season, which trouble and expense I can assure you they are well worth.

Of course, no one would think of having a garden without Lilies, and they must be planted in autumn. There is one plant that I am particularly anxious to speak a good word for, and that is the White Day Lily, Funkia alba. I do not know why this plant is not found in more gardens. Nothing can be lovelier than the pure white flowers, with long, narrow tube, golden anthers and broad, dark green leaves, sometimes ten inches across. The veins of the leaf run parallel with the mid-rib, and their shape is a broad ovate acuminate. It is a free bloomer, and is so fragrant that two large clumps near our front porch perfume the whole house. The dainty white buds just before opening are even more beautiful than the expanded flowers, and here is one novel, yet, with impatient people, like myself, I am sure, powerful recommendation for it. The buds do not require such an unbearable length of time to develop and expand as those of some of the Lilies, such as L. candidum, L. auratum and others. Two weeks after the flower-stalk pushes up, the lower flowers of the spike are open, while a bud of the Auratum Lily will torture you for weeks. There are three giant buds crowning a slender stalk in my garden now, that tantalized me so that the other day I actually pulled the tips of the petals of one bud apart, though I knew it would ruin the blossom. Funkia Japonica, the Blue Day Lily, is just as pretty, in its modest way, as the white; the leaves are smaller and narrower, and it has a spike of delicate blue flowers. Both varieties love a shady place, plenty of water, and to keep clear of frosts cover in autumn with a mulch of leaves and fertilizer. They are old varieties, I know, but they are scarce here. They bloom in July and August, and are splendid for cemeteries. Lilies planted in autumn are almost sure to bloom the next season, but if they do not don't be discouraged, for if you examine the root you will find it all right, and

perhaps half a dozen bulblets that you would not have gained had it bloomed. If I could have only a few kinds, I would be sure to have, at least, L. auratum, L. Harrisii and L. Thunbergianum grandiflorum.

One of my blooms of white Tigridia grandiflora, this summer, was eight inches across; its color is a creamy, silky white, the center of the cup dotted with crimson. It loves the sun, and the mice love its bulbs almost as well as Tulips. Tigridias have a very light and airy poise, and when my first T. conchiflora, with its clear lemon yellow ground and scarlet cup, opened, this summer, an unexperienced young chick seized and demolished it for a butterfly. When you cut flowers of the Tigridia be careful not to cut off the green calyx at the base of the peduncle, for through this green sheath other flowers come. The Tigridia was called Sicilian Lily in old-time gardens.

I cover my bulbs with a mulch of manure and pine boughs, instead of taking up in winter, but at the North this can not be done.

LENNIE GREENLEE, *Greenlee, N. C.*

UNSEASONABLE FLOWERS AND FRUIT.

Not a season passes without notice being given in the newspapers of unseasonable fruit or flowers having been brought to the editor for his inspection; such products are looked upon by many as remarkable occurrences not easily explained.

It is by no means uncommon to find Strawberries and Raspberries bearing a second time late in the summer, and all varieties of fruit trees are liable to bloom out of season, or have a second crop of flowers. Either the whole tree or only a single branch shows this peculiarity. We find, also, many of our native plants in flower earlier or later than usual, such as the Violets and Cinquefoils. One of our earliest spring flowers, the Hepatica, is ready to burst into bloom at any time during the winter when favored with a few warm days and bright sunshine, and has been found in flower in the same locality every month of the winter and spring.

Occasionally there are quite marked peculiarities noticed. There was exhibited at the rooms of the Massachusetts Horticultural Society, the past season, a branch of Bartlett Pears with two sets of fruit, one fully grown and the other a little less than half grown, produced from two sets of flowers on the same branch. Also, a second set of flowers of Magnolia Soulangeana, from a plant at the Botanic Gardens, at Cambridge, which bloomed abundantly as usual in the spring, then again in August, when in full foliage. It was at this time a beautiful sight, with its handsome leaves and showy flowers combined.

Trees that are transplanted often remain dormant for a greater or less season. Sometimes a year passes without their showing a sign of growth, then, the second year, making a start and doing well.

These phenomena are interesting and valuable to the horticulturist, and a thorough understanding of the causes might prove of great use in the formation of new varieties, or adding to the length of the fruiting season of those we already have. An Apple or Pear that would give us a second crop would certainly be valuable. A Cherry is already advertised that matures its fruit gradually, half ripe and ripe fruit growing on the same stem, and we have also some varieties of Apples that ripen gradually, green and ripe fruit being on the tree at the same time. One of the most marked examples of this is the Foundling Apple, a native of Massachusetts, not widely distributed, but a very desirable fall fruit for family use.

It is a well known fact that the bearing year of Apple trees may be changed if the blossoms or small fruit is picked off. The same effect is produced if they are beaten off by hail or storm, as they sometimes are, and also as a result of the ravages of the canker worm. This change is not always permanent, and the trees may again revert to the old year of fruiting.

Those plants requiring a short season to perfect their fruit are the ones most liable to produce unseasonable fruit. The Strawberry is formed in a few weeks after flowering, and under favorable con-

ditions of weather and soil will produce a second crop. If, now, the cause of the second crop could be determined so surely that it could be applied to produce a second crop every year, it would be of considerable value to the discoverer.

There are many results that work to bring about the phenomena named. A check in the growth of trees, caused by disease, injury in transplanting, insect enemies, or unfavorable weather, will often give rise to flowers being produced out of season. And, again, a more than ordinarily vigorous growth will produce a second crop of flowers. Many plants form their flower buds early in the season, and the growth of the tree may be checked by drouth or other cause. Then later on, a more favorable turn of weather will force a second growth, and occasionally force open the flower buds that were formed earlier. It is quite possible, too, that a second series of flower buds may be formed that will open later in the season than those formed earlier. This will, if true, explain many examples apparently not to be explained in other ways. The small spring-flowering plants, like the Strawberry, Violet and Hepatica, form the buds for the coming season in the summer and fall, and a few fine days will force them into bloom before their season. Then, again, the growth of such plants may be retarded, or a plant that started from seed late in the season will not fully perfect flower buds until spring. Such plants will bloom later in the season than usual.

There are many things in nature not yet understood, and every gardener can do his share toward making them plainer by observing any unusual action in the plants under his charge and seeking an explanation. Too often these variations are looked upon as going outside the field of horticulture and into that of the botanist. There should be no distinction between the two, both are working in the same field, and when both work together more systematically, more valuable results will be obtained.

WARREN H. MANNING.

FLOWERS—EARLY AND LATE.

"What is so rare as a day in June?
Then, if ever, come perfect days."

This season the weather has been in advance of the calendar. May gave us many days that seemed to belong to June; the warm, even hot, sunshine, with no undercurrent of winter lurking in the air, the rapid putting forth of foliage and flower, the deep blue sky with white clouds, like ships a-sailing, made the world seem a paradise after the long imprisonment of winter. LOWELL says,

"May is a pious fraud of the almanac,"

but she came near being a spring month for once. The Roses, however, did not come till June, and late June, too. Then what delight in gathering the newly opened blossoms in the early morning, with the dew upon their petals, at noonday, glowing in the sunlight, or at dusk, exhaling richest fragrance. I believe there is no pleasure in all the range of horticulture like that of cutting the first Roses in the garden. The mossy pink and white buds, the delicate pale loveliness of Baroness Rothschild, the sweetness of La France, or the velvety richness of Gen. Jacqueminot and other dark crimson sorts, each more beautiful than the other. But a Sweet Brier, which grows in a corner of a pasture, yields the palm to none of its more favored relatives. Its sweet, wild grace gives it a place among the best of them. I had thought of transplanting this wild Eglantine to my Rose garden, but I finally concluded to leave it in its fence corner and visit it there.

The great white and crimson balls of the Pæonies, and the flaming Oriental Poppies are in order in June, with many other herbaceous and perennial plants which give color and fragrance to our gardens in early summer.

Although June days are perfect in their way, with luxuriance of foliage, exhilarating air and glorious skies, yet many of us find the late summer and autumn days equally perfect in their dreamy restfulness. There is none of the hurrying activity of the season of rapid growth, and to us who labor with our hands in our gardens, there is less suggestion of work in the springing weeds. The annuals, which make little show in June, are in their glory in August and September. I

can now look out upon a gorgeous carpet of Petunias, Phloxes, Portulacas, Asters, Godetias, and so forth, and there is an odor of Mignonette in the air. It is the old-fashioned Mignonette. which I believe is as sweet as any of the new kinds, and I would advise the lovers of sweet flowers to waste no land, or money, or expectations upon the "Giant White Spiral Mignonette." It is not pretty enough to be valuable as a decorative plant, and its perfume, which is truly said to be "peculiar," is positively disagreeable to me, at least, and it certainly has none of the delicate, subtle sweetness of the real.

My Gladiolus—another of my hobbies—are a delight to me at this season. My admiration is about equally divided between the bright scarlet and the pale pink and white varieties. Many of the yellow and intermediate shades are pleaing by way of variety rather than for intrinsic beauty. I was disappointed last year, in Lord Raglan, which is salmon, blotched with crimson. Brenchleyensis, Arsinoe and Sylphide are beautiful. I presume the new and expensive ones are beautiful in proportion to their cost, which is entirely beyond the reach of my purse.

The Clematis Jackmanni, of which I complained last year, has retrieved its reputation by growing and blossoming well this summer, and now I want a white or light colored one to climb the same trellis and mingle its blossoms with the purple. What kind would be best? The Henryi, so far as I have seen it here, blossoms earlier in the season, and is done before the Jackmanni commences. Mine is on the south side of the house, where it is fully exposed to the sun, Would it do better in a more shaded situation, away from the reflected heat of the building?

I have also a vine of the Moon Flower, which promises to clamber all over the house, but it shows not the least sign of a full moon, not even a crescent bud. I am beginning to think it is called Moon Flower because, like JACK's Bean stalk, it "grows clear up to the moon."

The best of the Lilies flower in the late summer. And here let me remark, that one unusually fine display of flowers will rouse one's enthusiasm to the highest pitch for that particular kind. A few years ago our old-fashioned Roses were, for some reason, wonderfully fine, and large, and numerous, and I have cultivated Roses, new kinds and old, with varying success, ever since. Last year, an Auratum Lily, from which I had ceased to expect anything, suddenly put forth such an array of ivory and gold, and filled the air with such delightful fragrance that I straightway fell in love with Lilies, and have been planning for many new ones. My Auratum is taller and larger, and has nearly double the number of blossoms that it had a year ago, and I doubt if I shall find any that will surpass it.

But the summer is passing away, and as the little busy bee doth

"Improve each shining hour,"

to lay up store for winter, so let us, poor winter-bound prisoners, lay up store of summer memories, and visions of flowery scenes, which we can call up when snow and sleet and howling winds are outside. N., *West Oneonta, N. Y.*

FOREIGN NOTES.

BULBOUS FLOWERS IN MASSES.

The practice commonly followed of dotting hardy bulbs among the ordinary occupants of the herbaceous border is not calculated to convey a true idea of their value. One good breadth of Snowdrops or Daffodils will produce a much finer effect than the same number of bulbs will give if distributed over a large area of ground. We have only to note the pleasing effect of our spring-flowering bulbs where they are growing naturally to be convinced that this is the best plan to adopt. Scillas, Triteleias, and similar things of lowly growth do not show to great advantage in small clumps, but when seen flowering in large masses they are very effective. There are few more pleasing floral pictures than where the early spring sun lights up a good breadth of the Siberian Squill.

An advantage not to be lost sight of in thus grouping hardy bulbs is that one always knows exactly where they are. When they are dotted about among the miscellaneous occupants of the borders their exact whereabouts is often forgotten, and during the annual cleaning and digging they are apt to be destroyed. When borders are being dug I have frequently seen a whole spadeful of bulbs turned up. This is not at all the treatment that bulbs like, and is often the cause of the rather mysterious disappearances that occur with this class of hardy flowers. I am acquainted with the owner of a garden who for some years has made hardy flower culture a specialty, and the money that he has expended in the purchase of hardy bulbs would have stocked five or six such gardens had they got any thing like fair treatment after planting. Most of them were planted among or in the front of shrubs, and when the annual digging takes place the bulbs are ruthlessly destroyed. It is true that each clump is marked with a zinc label with a number on it, but the workman often simplifies matters by turning in label and all. Unless a workman is fully impressed with the necessity for great caution when digging among hardy bulbs, he is sure to injure some of them, unless large white painted labels are used, in which case a garden looks like a miniature cemetery. In small gardens it is generally practicable to set aside a corner for bulbous plants, where, no digging being allowed and a top-dressing of rotten manure being given annually, they will increase and make a fine display at their appointed time. J. C. B., in *The Garden.*

PAVIA MACROSTACHYA.

LOUDON, fifty years ago, called this shrub "one of the greatest floral ornaments of the shrubbery," and this remark holds good now, for there has been no shrub introduced since LOUDON'S time that can rival this Pavia for beauty of flower or elegance of growth. It is the more noticeable at this season because there are so very few trees or shrubs in bloom, and, therefore, a great deal should be made of the Pavia. In gardens about London it has been coming into bloom for over a month, and will continue in bloom for some weeks yet. It is a wide-spreading shrub, rarely more that ten feet or twelve feet high, generally under, and sends up slender, erect shoots in all directions. These at first spring from the main stem horizontally, and take root, so that an established specimen of this Pavia may be said to be an assemblage of distinct plants. Each shoot or stem is terminated by a feathery spike of white bloom, often nearly a foot in length, and agreeably fragrant. The foliage, too, helps to give the shrub that air of elegance which makes it so admirable. In short, it is one of the finest of all hardy shrubs, and being an autumn flowerer, is the more valuable. It will grow anywhere, but best in a moist situation, such as the margin of a stream or lake. It is a native of North America, growing commonly in the Southeastern States by the banks of rivers. It was introduced over sixty years ago, and is known under various names, such as Æsculus parviflora, Æ. macrostachya and Æ. edulis, but Pavia macrostachya is that by which it is generally known. W. G., in *The Garden.*

FINE SCARBOROUGH LILY.

There can be no doubt now about this variety, Vallota purpurea magnifica, being very different, and also much superior, to the ordinary Scarborough Lily, and the nursery firm who distributed it did not say a word too much in praise of it. It is a glorious plant, the flowers being of exquisite form and exceedingly brilliant in color. Compared with the old Vallota purpurea, the flowers are quite a third larger, and produced three or four together on spikes fifteen inches or eighteen inches high. There is more of an orange-scarlet glow about the flowers, and the large milk-white center (which does not exist in V. purpurea) intensifies the scarlet. Some plants of it have lately been very attractive in the Cape house at Kew. There is room for both this and the type, as the variety flowers earlier. W. G., in *The Garden.*

FREESIAS.

These plants should now be repotted; and it is better to repot before they commence to grow again than after. Any one can grow the Freesia who has a greenhouse or a garden frame; and it is worthy of remark that the less artificial heat the plants have, the flowers, although not so early, are much larger. Those who have plenty of bulbs may grow them so as to form fine specimens by planting them in pans twelve inches to sixteen inches in diameter. We cultivated them this way last season; but they are more useful when grown in pots, placing about eight strong bulbs in a five-inch pot, and such a specimen makes a very pretty object for the table. In the matter of soil, the Freesia is not very particular, but it should not be too light. No doubt they would grow very well in good garden soil if some sand was mixed with it. I make up a compost of equal parts loam and leaf soil with a sprinkling of sand, and this mixture suits them admirably. The bulbs should now be shaken out of the old soil, and the largest selected for flowering. Grow the small ones in rather deep pans, to get them strong enough for another year. As soon as potted, remove them to a cold frame, or place them on a sandy shelf in the greenhouse. It may be some time before they show signs of growth, but the soil should be kept fairly moist, and as growth increases, the plants will require more liberal supplies of water. So long as frost does not reach them, they will take no harm, and if desired they may remain in the frame until they come into flower. But if the plants are wanted in bloom at Christmas, they must be placed in the warmest part of the greenhouse at the end of October, and about the middle of December be taken to a house where the temperature is not less than 60° by night and 70° by day. It is a mistake to withhold water as soon as they go out of flower, for they require a liberal supply until the foliage is quite yellow. J. C. C., in *The Garden.*

EUCHARIS AMAZONICA.

With a sufficient number of plants, enough heat in which to grow them, and the necessary forethought in keeping a portion of the stock growing with others subject to short rests, an almost continuous succession of flowers may be had. It is now generally known that this Eucharis will bear being submitted to alternate excitement and rest in a way that few things will stand. Like others who have treated the plant in this manner, I have had the same bulbs in flower three times within a year, but it is better to be content with two crops in that time, as the short seasons of forced growth and of equally forced rest are apt to weaken the plants. As has before been remarked, this Eucharis is one of the few plants that do not like to be stood near the glass in a light, well constructed house. It may often be seen strong and in faultless condition in old-fashioned dark houses or pits where most things would succeed indifferently; consequently, when located in a light position, thicker shading material should be used. The plant is an exception to most bulbs, the generality of which like to have their roots more or less confined in the pots in which they are grown; specimens that are cramped for room should either have larger pots or be divided. Potting may be carried out at any time from early in spring until the autumn; even in the case of large examples that are to be broken up there is plenty of time for them to get established before the end of summer. The bulbs should always be divided with as little damage to the roots as possible, for on the retention of these depends the

future progress of the plants. I do not advocate wholly breaking up the specimens into single bulbs unless they are collectively large and strong, as the separation generally causes the production of a crop of flowers when it is more desirable to grow them on until they have attained a larger size. With this object, where the bulbs are wanting in strength, it is often better to move the plants into larger pots. T. B., in *The Garden.*

LAYERING CHRYSANTHEMUMS.

The following method of getting dwarf plants of Chrysanthemums is given by a writer in a late number of *The Garden.* In this country and in this locality July would be the proper month for layering, that is when the flower buds have just formed.

Where small plants of Chrysanthemum are required to flower in proportionately small pots, layering is much the best method by which to obtain them. Where this system is adopted it is usual to plant out some of the old specimens in spring, choosing an open piece of ground where the growth will not get drawn, allowing enough room between the plants to admit of the layering being carried out without crowding. In selecting the varieties for this purpose such as produce only a limited number of large flowers should be rejected, giving preference to sorts that flower freely. Plants intended for layering are better if they have not been stopped in the usual way, as then the whole strength is directed to a limited number of branches, which naturally produce more lateral shoots toward the tops than stopped plants do, and on which a good deal of the appearance of the layered plants depend. Now, when the buds will in most cases be set, the layering should be at once proceeded with, otherwise there will not be time for the layers to get well rooted before frost sets in. The branches should be layered just below the lateral shoots that are set with flower buds, so that the plants will be furnished with bloom from the base upwards; in this way they form pyramids of flower from top to bottom. The shoots, after being stripped of a portion their leaves, should be pegged down firmly in little mounds of prepared soil, similar to the way in which Carnation layering is carried out, but allowing a larger body of soil than is necessary for Carnations. Keep the soil moist, so as to encourage the formation of roots that will take place in five or six weeks, when the layers must be taken up and potted, giving them no larger pots than needful to admit the roots with enough soil to sustain them. Plants that are managed in this way require only a single stick to the main stem. They have a nice appearance, and can be used in positions where large specimens would be unsuitable.

AN ORNAMENTAL BARBERRY.

Berberis stenophylla is a garden hybrid between B. Darwinii and B. empetrifolia, and is certainly one of the most ornamental free-flowering shrubs with which any garden can be planted. It is far more hardy than Darwin's plant, and a near rival to it in beauty and floriferousness, for certainly when the long, arching branches are, for fully half their length, enveloped in the golden flowers, it is a shrub for which to find a superior is no easy task. In the shape of large bushes this Barberry is remarkably effective, but particularly so when placed on the greensward, the drooping, slender, narrow-leaved shoots and golden or lemon-colored flowers rendering it as distinct as it is handsome. Any soil almost will suit it, and likewise any situation, although we certainly have noticed its preference for a rather warm, sandy soil, and sunny position. As a berry-bearing shrub, this Barberry likewise merits attention, for during late autumn and winter the dark purple fruit is both pretty and attractive.

A. D. WEBSTER, in *Gardeners' Chronicle.*

RED SPIDER AND MILDEW.

We have received from Mr. JUPP, gardener to CUTHBERT N. H. JOHNSON, Esq., of Croydon, the following effectual remedy against red spider and mildew: Take two pounds of flowers of sulphur, two pounds of unslacked lime, and ten gallons of water, to which add two wineglassfuls of petroleum oil. Boil the whole for twenty minutes, but not violently, and when cold, bottle and cork it tight. To use it put half a pint to ten gallons of water, to which add two wineglassfuls of petroleum oil, mix all well with the syringe, and apply it in the evening only.

Journal of Horticulture.

PLEASANT GOSSIP.

FRAME—WINTER PROTECTION.

I want to ask, through the columns of the MAGAZINE, whether a seed-frame, described in the August number, page 243, would be a good protection for Feverfew, English Daisies and Marguerites during the winter?

Will the Clematis Jackmanni and C. coccinea have to be protected by being laid down through the winter?

I send you a leaf from a tree raised from a seed sent me from California. Will you tell me what it is, and how to treat it? Will it do to keep in the cellar during the winter? Does it ever blossom?

MRS. O. S. A., *Denver, Colorado.*

The frame inquired about would not be sufficient protection for plants in winter in your region of country.

It will be best to give the Clematis plants the winter protection of a good coat of leaves.

The leaf which was received appears like that of some Acacia tree, and more than this concerning it we cannot say.

JAPANESE CATALPAS.

I have some Japanese Hybrid Catalpas, purchased last spring, merely rooted slips. As it was a very dry time, I potted them instead of setting directly in the ground. They are now some eight inches high, part of them in five-inch pots and part in seven-inch pots. How shall I winter them? Will it do to store them in the cellar, or what do you advise? Our winters sometimes go 15° below zero.

C. W. W., *Strafford, N. H.*

When it becomes necessary to shelter the plants, they can be taken to the cellar, removed from the pots without disturbing the balls of soil, which should be sunk into the cellar bottom, whereby the roots will receive sufficient moisture to keep them through. Some additional soil or sand should be drawn around the stems; there they can be left until ready to be removed to the open ground in the spring

COMPOST FOR ROSES.

In an article on compost for Roses, in the July number of your valuable MAGAZINE, it was stated that "dead or decayed leaves were well known to be very injurious to Roses." Now, I have never heard this before. Can you give me some information through your columns on the subject.

W., *Baltimore, Md.*

The remark referred to is contained in the statement of J. N. MAY, a practical rose-grower, given on page 214 of the MAGAZINE. "W.," however, does not give the language corretly. Mr. MAY said, "decaying leaf-mold is absolutely injurious to Roses." In our own experience we have found leaf-mold of no value as a potting material for Roses, and, consequently do not use it. Exactly how it, or rather, "decaying leaf-mold," is injurious, perhaps Mr. MAY will inform us some time in the future.

VERBENAS—CACTUS—ROSE.

Will Verbenas do well in a window garden in the winter?

I have a Cactus, over a year old, with three long branches. Will it blossom this winter, and will it be benefitted by cutting off part of each branch?

Is there any thing which will prevent buds of the Moss Rose from blighting? The petals turn brown at the tips and stick together. It is in good soil, and although the buds were thinned out this summer, it did not affect their way of opening.

A SUBSCRIBER.

The Verbena is a poor plant for the window at any time, but in winter it is quite worthless.

It will not benefit the Cactus to remove portions of it. Instead of hastening, this would tend to delay its blooming. It may not be expected to bloom this winter, but should be kept in a warm place and be given little if any water.

We should give the Moss Rose bush mentioned a good dressing of old manure this fall, on the surface of the ground, which will leach through into the soil during the winter. At blooming time, next summer, give a good watering of liquid manure.

CURE FOR POISON IVY.

The juice of the stems and leaves of the common wild Balsam, with spotted orange-colored flowers, known as Jewel Weed and Touch-me-not — Impatiens fulva—has been found a sure cure of the poison of Poison Ivy. The juice can be applied to the affected skin surface, painting it with a small brush, or the leaves and stems can be gently rubbed upon the surface.

SOME NOVELTIES.

Comet Aster.—This, from a German source, has proved a very attractive flower. It is irregularly reflexed; in color, white, with the petals striped with pink or rose of a rather bluish cast. The plant is about eighteen inches high, with about a dozen flowers of fair size. The hot sun quickly bleached the color from the early blooms.

Picridium tingitanum.—This is a yellow Composite, with dark red center petals; it is a rather coarse and scraggly-growing annual. The flowers are of good color, but closing early in the day and in dull weather. It is of little value, especially as fine yellow Composites are abundant.

Zinnia Zebra.—This strain, originated by a French seed firm, has been offered here this season. The novelty consists in various stripings and markings, changing somewhat the usual character of the flowers and scarcely for the better. The flowers are rather small.

Zinnia robusta grandiflora.—This is a decidedly improved strain, from a German, the plants being remarkably robust and giving grand flowers of fine colors. The petals are rather loosely arranged and avoid the flat appearance so common to many strains. It is claimed that flowers may be had six inches in circumference, which I am willing to believe, though not willing to confirm it by any special cultured effort. Zinnias grown in clumps are unsurpassed for giving masses of bright color in the garden, and monstrosities in size are not specially desirable. There is entirely too much attention given to development in the direction of size to some flowers—instance a case in point, the Canterbury Bell, improved forms of which, as now offered, are monstrous, and lacking in the grace which has endeared the flower to so many generations.

Humulus Japonicus, Japanese Hop.—For a rapid growing, rather coarse vine for covering large spaces, this is very desirable, and with its large, light green leaves, very attractive. A plant started the end of April is now, August 15th, some twenty feet high, and is furnished at every joint with two shoots of rapidly extending lengths. G.

[In regard to the Picridium we have to note that it was introduced into England, from Barbary, one hundred and seventy-four years ago. Since then its cultivation has been given up, and is now renewed at this time.

The strain of Zebra Zinnias is not well fixed—it is not constant, a large proportion of the flowers are not striped. A very skillful seed grower here, took this same variation in hand a number of years since, and after experimenting with it for a considerable time without being able to fix the strain, rejected it as unworthy. Now it comes out as a French novelty.

The New German strain of Zinnia, Z. robusta grandiflora, is in no way superior to the form of Double Zinnia we have cultivated for many years, not more robust, nor more floriferous, nor are the flowers in any way finer, more graceful or larger. We cannot say that the seed the German house is sending out in this case has been purchased in this market, but if not, it is not improbable that the strain produced here has been procured by them from which to raise a stock. The Double Zinnia has been largely cultivated here for many years, and the flower brought to great perfection by careful and constant selection. The size mentioned is probably a mistake, as our flowers are often from ten to twelve inches in circumference.—Ed.]

NICOTIANA AFFINIS.

I should like to call the attention of every flower lover to the sweet-scented night-blooming Nicotiana affinis, valuable not only for garden and in-door decoration, but also for cut flower work, its pure white blooms when placed in water remaining expanded and fresh for many days, and emiting its delicious fragrance morning and evening. It requires no care after planting out in spring, and when repotted for the greenhouse or window, may be placed in some corner where, mayhap, nothing else will thrive, and if watered freely will repay you a thousand fold by its sweet and abundant bloom.

It may not be amiss to add here that in the absence of fine flowers, or where a bouquet is desired for showy effect, that nothing can be finer than the Nicotiana arranged with bright colored Geraniums, Hydrangea paniculata grandiflora and a variety of Coleus.

Mrs. W. B. P., *Mahopac Falls, N. Y.*

A NEW MANURE.

Basic slag, the refuse of steel works, when freed from iron and reduced to a powder proves to be a valuable fertilizer, principally on account of the phosphorus it contains. Mountains of black slag have accumulated about the iron and steel works in England, and much in this country, all of which can be profitably worked over and made into a valuable manure.

A LETTER FROM PARIS.

Paris is never deserted, and at present, July 27th, is full of strangers who inquire how Parisians can leave this city of beauty at the moment of summer's perfection. Fruit and flowers greet the eye upon every street corner, Strawberries and Peaches, not each in season, as we can never learn the fruit in season, it being only a question of price in Paris; flowers and fruits have no season here, the rarest and most delicious can always be had. The Champs Elysées and the gardens are illuminated with varied colored lights, and fairy lights peep out of scarlet Geranium beds, and the breeze wafts an odor of Pinks, and one understands the mass of flower bed upon each corner of the Champs Elysées, arranged so as to imitate the wild flowers of the field, as if to relieve the eye and make an agreeable change from the very fullness of cultivated nature. The fountains are in full play at Versailles and St. Cloud, and successfully, judging by the crowds of strangers one meets there to see the water play at night while illuminated by electric lights.

A SEVRES VASE WITH GRASSES.

The Jubilee celebration at London being over, strangers and Americans cross over the channel to take a peep at Paris, *en route* for Switzerland and the seaside watering places.

The flowers exposed in the windows of the florists upon the grand boulevards seem to droop, and Roses are on the wane until September. The government display of Sevres vases is unusually choice. The sketch is a faithful copy of one large vase exhibited there and sold to a Californian, regardless of price, a bonanza vase, perhaps. The plants or grasses which filled it were selected from VILMORIN'S annual collection. The exterior of this vase was of blue Sevres ornamented with storks, the band or border around the vase is of gilt in Arabesque design, a copy from the ancient styles. The form resembles the Japanese.

Hanging baskets are in vogue, made of Willow, in form of glasses or boots, from which peep vines and flowers. No hanging basket for house decoration is permitted unless a floral one. Match boxes have a receptacle for flowers, and new tea services for the four o'clock tea have a little corner made on the service and reserved for flowers, and in English homes the waste basket by the side of the writing desk is highly ornamented with flowers—why not introduce it upon a boot-jack? Little lap dogs are promenaded along the Bois de Boulogne with bouquets attached to the dog collar.

A floral picture frame is the latest novelty; the corners of the frame underneath contain a small deep thimble in which a few drops of water are filled, and the memor-

able Heartsease, or Pansy blooms at least a day in grateful remembrance. A Rose basket, made of wicker, in shape of a leaf, filled with deep red Roses, is a dinner table ornament; when filled, the basket, being shallow and almost flat, is invisible, showing only a mass or center piece of Roses. At a christening a floral hammock was swinging in a corner, too fragile to contain Miss Baby, who looked on in nurse's arms, with a garland of Daisies around neck and half of skirt of christening robe. Mirrors and heavy bronzes disappear in Roses and garlands upon this occasion, and the carpet or rug is covered with white linen, the only design being a floral one, consisting of heaps of Roses and smaller flowers thrown in masses upon the floor—the idea is a floral one—showing what can be, and what is done with flowers.

Window curtains are looped back with wild flowers, and a Persian cushion with Wheat and Poppies is the very latest tribute of affection for a birthday offering.

ADA LOFTUS.

NOTES FROM MY GARDEN.

All flower lovers, especially those who work and "never tire," have, doubtless, had many regrets and disappointments about the time Mr. J. FROST is expected to make his annual visit to their part of the country, and the many "ifs" and "buts" are not at all consoling unless the experience of former seasons in "note book" have come to the rescue, and been a friend in time of need. Mine tells me that it is best to outline all flower beds before sodding, but defer planting till that is quite finished, as I have never yet been able to convince a man who follows sodding as his trade that his feet must not be planted in my flower beds; I want something beautiful there. He generally keeps me very anxious as to the circles, curves, &c. But after all are really done, and the pleasant task of deciding what shall be in each—Roses, Geraniums, Carnations, climbers and bulbs, and a long list of others, too numerous to mention, are all located—we see the general effect in anticipation. My present hobby is to plant, *en masse*, with borders of low-growing annuals, always selecting with an eye to contrast. The Dahlia should occupy a central position, and, if possible, a large bed. They are tall, stately, imposing plants, and the newer varieties are marvels of beauty. The Pompons make a fine outside row to a circular bed of the tall varieties, and the gay, ever-blooming Portulaca makes a fine border. This bed should be made "cupped," that it may retain moisture. Soil rich, fully two-thirds manure, and on this some four inches of good loam. The bulbs flourish in a surprising degree when so planted, but they must not come in direct contact with the manure, as it often causes rot. Poverty of soil is the foundation for imperfect, stunted buds and little bloom.

The Dianthus, or Chinese Pinks, are superb grown in masses, and one could scarce believe how grand a display their bed makes compared to those scattered about the garden in twos and threes. I have two beds of them, diamond shape, measuring eight feet from point to point; they are now at their best, loaded with buds and blossoms of every shade of crimson blended so they seem purple, black and velvety, with clear, pure white and scarlet-crimson to mingle together. What could be lovelier?

Another bed, grown especially for a fall display, is exquisite, filled with Asters, the tall varieties in the center and the dwarf as a border. These must be grown from seed, and are more stocky, better shaped plants if transplanted two or three times before planting out. As they advance in growth tie to neat stakes, as they become top heavy when full of buds and blossoms. Mine, at this date, are grand, perfect pyramids, of every color, some beautifully mottled, and one, the color of Giant of Battles Rose, quite new to me, though I have grown them every season. They are planted in deeply dug beds of sandy loam, with no manure. After they had set their buds, I have fed them well with liquid manure, stirring the soil around each before applying it. They have been syringed every evening, washing the foliage free from dust and ants. These pests are one of their enemies, but not fatal, as in the case of the ground aphis. This terrible fellow has often blasted a large collection when just coming into bloom. Experience has taught me to omit manure in the soil on this account. There is a fungus generated in decayed or decaying manure that induces disease, and, whereas, I used to defer planting or

potting until I could procure it, I now much prefer the liquid form, and use scalding water when preparing it.

Now is the season to get ready for next year, by planting seeds of Delphiniums, Hollyhocks, Pansies, Canterbury Bells, Sweet Williams and the Perennial Phlox. My bed of Delphinium formosum, with a border of dwarf straw or lemon-color Hollyhocks, are most beautiful. They were planted just one year this month.

MARIGOLD.

OCTOBER WORK AT ELMDALE.

None but those who have tried taking notes from daily observations and planned ahead each month's work therefrom can realize the real value of such a course, beside the greater amount of pleasure derived from a garden where such a record is kept.

At Elmdale the principal part of the whole year's work is regulated in this way, and the fine appearance of the place testifies of the advantage of this course.

The first of this month's doings is to transplant the seedling Pansies, Hollyhocks and other hardy plants, sown recently, into prepared beds, where they are to remain for next season's flowering, not forgetting to water as needed.

Many hardy annuals, prominent among which are Sweet Alyssum, Poppy, Calendula, Clarkia, Mignonette, Nemophila, Candytuft, Larkspur and Portulaca, if sown now flower earlier and larger than if deferred till spring, the only thing to guard against being a wet, heavy soil.

I am glad to notice an increased interest in the planting of hardy plants and bulbs in grass plats, and while this has, for some time, been a quite pleasing feature at Elmdale, I observe that there are yet several places where this can be introduced with good effect. For the removal or planting of most things suitable therefor no better time could be had, so several days will be spent at this and the dividing and replanting of those which have been left undisturbed for some years, now needing attention.

Before leaving this portion of my notes, let me say that the Narcissus family is employed largely and gives great satisfaction. As a rule, they grow compactly in clumps, thus admitting of the grass being mown right close to them, maintaining a neat appearance. It is hard to conceive of anything more handsome when the flowers are swayed to and fro by the spring breezes, the effect being heightened by the rich, velvety greensward as a background.

The last lot of Chrysanthemums, comprising the late flowering sorts, will be lifted and potted about the tenth of the month, keeping out as long as possible without injury from frost before bringing in. By treating this class thus, the season is prolonged much, and the flowers are better both in size and number than if lifted earlier. The plants must be gone over every day, keeping a sharp outlook for caterpillars, and watering copiously. As there is little gained by longer use, the applications of liquid manure, previously given twice a week to all varieties, will be diminished gradually after the first flowers open.

Dutch bulbs, both for the conservatory and garden, should be planted as soon as they can be obtained, there being no gain in having them lie around the florist's establishment, indeed, some, especially Liliums, are often injured from being so long out of the ground, though extreme care may have been used in handling.

In preparing Tuberoses, Begonias, Dahlias, Gladioli and similar summer flowering tubers for their winter quarters, much precaution is taken by our gardeners to have them perfectly dry. It is safe to estimate that, nine times out of every ten, failure to preserve during winter lies in the bulbs being damp when stored.

Of the late planted Gladioli many stalks are yet green, these, if left on when the corms are pulled, have a tendency to better ripen them. The Dahlia, when dug, should have the stems cut off within six inches, and be inverted to allow the moisture to drain out.

A number of Tuberoses in the bed bordering the shrubbery are late, but will perfect their flowers inside, if lifted very carefully before first frost, and kept well watered afterwards. Two plantings, some fifteen days apart, were made, thus lengthening somewhat the most attractive period of the bed.

Tidiness is hard to have at this season of continuous leaf-falling, but must be maintained in some degree. All leaves to be gathered up once a day and piled in the shed for future use. After the first hard frost the garden is gone over, all

blackened plants removed, the ground levelled, and so on; for the weeks of delightful autumn weather to follow may as well be enjoyed in the garden as not, if one will. FISKE.

WAX PLANT.

In the September number of the MAGAZINE, just at hand, I see you, in reply to M. H., in regard to how the Wax Plant should be treated, say, "It must not be expected to bloom in winter." Now, I have had mine nine years, trained to the side and across the windows of my bay window, in the hot sunshine all day long, summer and winter, and for two years it has never been without flowers. Last winter, at one time, it had twenty-eight large clusters of flowers, and all winter long was not once without blossoms, and now, after having blossomed all summer, has twelve clusters in full bloom, and I do not know how many buds. My plant had many visitors, as it is the only one of the kind in bloom. I think if M. H. will give the Wax Plant (mine is the Hoya,) plenty of sun and let it have good rich earth, repotting only once in a year, or only when root-bound, it will bloom both winter and summer.

H. M. L., *St. Peter, Minn.*

"TAKING THE BUDS."

Early September is an anxious and busy time for the "Mum" grower, as upon his judgment at this time will largely depend the success of his season's work. However much difference of opinion there may be as to the systems on which Chrysanthemums are best grown, there is only one way to produce fine, well "finished" flowers, and this is by more or less thorough disbudding. Presuming that plants have been properly cultivated, are well furnished with healthy leaves, have had all spare and useless shoots kept pinched out, three important things yet require attention, disbudding, feeding and giving such cultivation as will insure their being "hard" and well matured as the flowering season approaches. Early in September most varieties will show the bud which, properly taken, will give the best bloom at its prime about "exhibition" time. This is called the crown bud, and is the one usually taken by exhibitors. It will be readily recognized on examination of the "Mum" shoots, especially as the bloom bud is usually accompanied by the narrow-shaped leaflets peculiar to it. As soon as it is fairly distinct the buds or shoots below should be cut out with a sharp pointed knife—all shoots on balance of stem having properly been pinched out during the season.

If the shoots are allowed to develop, the crown bud is imperfectly developed and numerous buds appear on the various growths, the largest of which, known as the "terminal," is "taken" when disbudding. This system is used for bush or decorative plants, and does not produce the large, solid specimens usually seen in exhibitions. G.

[Our readers will be thankful to G. for these practical remarks in regard to specimen blooms of Chrysanthemums, though too late for practical application the present season. They were intended for the September number, but that was already on the press, (August 21st,) when they were received.—ED.]

FUCHSIAS.

Very few of our beautiful flowering plants are as easily raised and brought to perfection as the Fuchsia. Cuttings are rooted in a very short time and soon bloom. While growers may differ as to the kind of soil that gives the best results, shade and moisture are of the greatest importance, for, no matter what the soil is composed of, large, fine plants cannot be raised unless there is moisture through all the growing season, and such plants only produce large buds. The north side of a building seems to be the best place for the Fuchsia in summer, and the plants may be taken to the cellar when in danger from frost, and remain there, with an occasional watering, till spring, when they may be pruned and repotted. W. R. M.

A GARDEN CONCERT.

An account is given in a Dutch horticultural journal of a concert given on the 3d of last July, in the garden of Madame REYNEN, at Roosteren, in Lemburg, where the performers, thirty in number, were placed under the shelter of a Weeping Rose tree, the head of which measured over sixty-five feet (twenty metres) in circumference. It was estimated that there were ten thousand open Roses on the tree at the time.

A GARDEN AND ITS PESTS.

I read with a great deal of pleasure and profit, your valuable MAGAZINE, and find much useful information regarding the care and culture of a garden. This has been a very hot, dry summer, some of the vegetables and a large number of the more tender annuals I had to sow twice, and even then they did not do as well as usual, owing to the great drought. This is the first season I have tried Zinnias, and for the "windy west" find it a most desirable plant, being so strong and rugged, and able to grow under difficulties. I sowed the seed in a box quite early, and by the time it was warm enough to set them out they were strong, healthy plants. I put them in a border by themselves with a few clumps of Mignonette between. They were soon in bloom, and have been a surprise and pleasure all summer. Mine is the Pompon variety, very double, and brilliant colored.

Can you tell me what to do to destroy the following pests?

There is a small, snail-like looking worm bent on destroying our Cherry trees; it appears on the upper side of the leaf. I enclose a leaf. This has been a fruitful locality for the Early Richmond Cherry, but lately, many fine orchards have died, and I believe this worm is the cause.

Also, I have been very much troubled by a green worm eating my Mignonette. There are great numbers of white butterflies hovering over the beds, and I am persuaded they lay their eggs and the worm is the product. Please don't tell me to catch the butterflies, as I have tried that, and a hundred came to the funeral. MRS. W. W., *Maplewood, Ill.*

The black slug which eats the green tissue of the Cherry tree leaves can be destroyed by dusting the foliage with powdered air-slaked lime, or by syringing it with a solution of whale oil soap—a pound of soap to eight gallons of water.

Persian Insect Powder, or the Excelsior Insect Exterminator will, either of them, destroy the green worm on the Mignonette. The powder can be dusted on, or applied by mixing it with water and sprinkling it.

YOUNG TUBEROSE BULBS.

Will all the small Tuberose offsets which I planted last spring, bloom next year? If not, how can I distinguish those that will? Are those that bloomed this year good to plant for another year's bloom, or are they no good at all? Should the bulbs be taken up and dried before frost kills the foliage?

P. W. A., *Arcola, Ill.*

Those Tuberose bulbs which are strong enough may be expected to bloom the following year. Experience only will enable a person to decide in regard to this point; the largest, heaviest and plumpest bulbs are those that are ready to bloom. Bulbs that have once bloomed are, as a rule, worthless afterwards, and should be thrown away. It is best to lift the bulbs before hard frosts occur, though light frosts that do not enter the ground do no harm.

ALTHÆAS AND ROSES.

What is the best treatment for a young Althæa tree and some young Jacqueminot Rose trees? Have I to take them in the house or cellar over the winter, or is it better to leave them in the garden?

My old Rose trees were very much eaten by insects, not only the leaves, but even some of the buds, the latter by a kind of green worm. What can I do to prevent it?

What is the best time to plant Grape vines?

MISS J. D., *New York, N. Y.*

Althæas and Jacqueminot Roses will winter out in the garden in New York. Both of them can be protected by tying them up with straw. When the Althæa has become well established and made two or three years' growth, protection will not be needed. The Roses will stand out without protection, but they will be the better for it.

Use whale oil soap for the worms on the Roses; the proportion of one pound of soap to eight gallons of water is the proper one.

AMERICAN FLORISTS.

The meeting of the American Florists, August 16th, at Chicago, was a highly successful one. A large number of members was in attendance, and the session was full of interest. Mr. HENRY BENNETT, of Shepperton, England, the famous originator of new varieties of Roses, was present, and took part in the discussions. The President, ROBERT CRAIG, of Philadelphia, made an able opening address, reviewing the course and work of the society. He concluded by saying: "On the whole, the outlook for horticulture in America is encouraging. The nation is young and prosperous, with unbounded resources and ever-increasing wealth; the enterprise and activity of its citizens are marvelous. The freedom from the burdens of large standing armies and war taxes, which this country enjoys, offers the greatest encouragement for the development of intelligence and skill. The nations of the old world suffer from these grevious burdens, and the struggle for existence is thereby made more severe. In America every industrious man, no matter how humble his position, can afford to indulge, more or less, in matters of taste, and it is our mission to invite him to spend a part of his time in the garden, and to assure him that he cannot find any higher pleasure on earth than its delights afford."

Several interesting papers were read,

among them being one by JOHN THORPE, on hybridization, or. rather, cross-fertilizing. A paper on the summer propagation of Roses, with a list of best varieties, was read by E. G. HILL, of Richmond, Indiana.

An exhibition of flowers and dealers' supplies was held in a separate hall.

The officers elected for the ensuing year are E. G. HILL, President; JOHN N. MAY, Vice President; W. J. STEWART, Secretary, and M. A. HUNT, Treasurer.

The next, which will be the fourth, annual meeting, is appointed to be held in the city of New York, August 17th, 18th and 19th, 1888.

FRUIT SHOW AT BOSTON.

Fifty-eight varieties of Apples were shown at the meeting of the American Pomological Society, by E. F. BABCOCK, Russelville, Arkansas; ELLWANGER & BARRY presented one hundred and thirty varieties of Pears; T. S. HUBBARD, of Fredonia, N. Y., showed one hundred and sixty-five varieties of Grapes; E. WILLIAMS, of Montclair, New Jersey, forty-one varieties of Grapes; A. J. CAYWOOD, of Marlboro, Ulster County, New York, exhibited his seedling Grapes, the Black Delaware, White Concord, Ulster and Poughkeepsie; for each of these exhibits a Wilder medal was given.

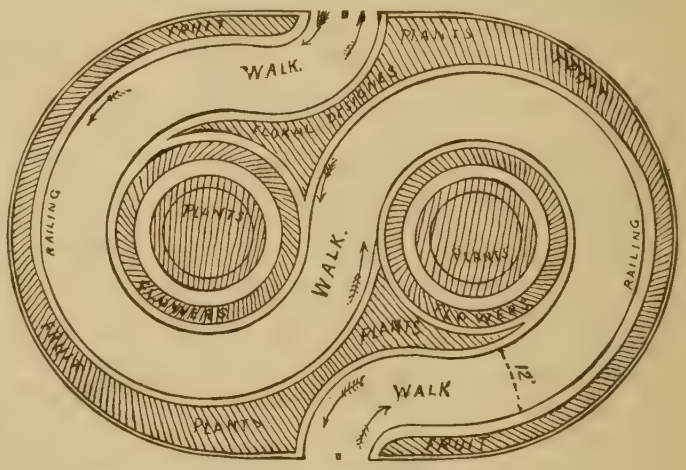
Bronze medals were given for an exhibit of seventy-seven varieties of Apples by the Worcester Grange; one hundred and eighteen varieties of Pears by CHARLES H. HOVEY, of Boston; two varieties of Japanese Persimmons and two of Lemons, by DUDLEY M. ADAMS, of Tangerine, Florida, and a collection of Apples, Pears, Peaches and Grapes by the Lincoln Grange.

JAPAN ANEMONE.

Those who have never seen a mass of plants of the White Japan Anemone can have no idea of the handsome appearance it presents. A large circular bed filled with it, on a lawn which we have daily passed, always excites admiration. It commenced blooming in the early part of September and is constantly opening new buds, and will look bright and fresh until destroyed by frost. Do not place this plant singly, unless there is no room to plant more of it. Give it a chance to show itself at the best by massing it.

DESIGN FOR FLORAL HALL.

The very original design for the arrangement of flowers and fruits, as displayed at the late New York State Fair, is shown by the engraving of the ground plan here presented. The circular tables were elevated so as to stage the plants in tiers in the most effective manner. The fruits occupied the outside tables. By this arrangement everything on exhibition is within easy sight of the visitors, and by once passing through the walks the whole show may be seen. There are no hard lines, no sharp corners to turn, no travers-



FLORAL HALL AT THE NEW YORK STATE FAIR.

ing the same ground over twice in order to reach an unvisited spot.

The credit of this design is due to the Superintendent of Floral Hall, FRANK H. VICK, and his assistant, Mr. GEORGE FRAUENBERGER, artist and engraver, of this city.

CRAB APPLES AND FIRE-BLIGHT.

A well known western fruit grower, D. B. WIER, advises to plant Siberian Crab trees in close lines, say six feet apart in a row, and never to prune them. Under these conditions, he claims they will escape the fire-blight, which now so commonly injures them. The advice is founded on experience.

GRAPE NOTES.

The earliest good Grape to ripen, this season, in our collection, was the Jessica, which was eatable the 16th of August, and in excellent condition a week later. This is a fruit of the first quality, and deserves the special notice of amateurs who want fruit of good quality. Its small clusters and small berries of green color do not make it attractive in the market, but the private grower will find it a variety which he will never tire of. The vine is a strong grower, with good foliage, and it can be relied on for health and vigor.

The Worden is a great improvement over Concord, in quality, and is even better in appearance; at the same time it is as hardy, as prolific, and in every way as reliable, and the fruit ripens a week earlier.

A young vine of Woodruff Red produced a little fruit which ripened early and was eagerly consumed. Though it cannot be regarded as of high quality, it is sweet, and will be relished by most people.

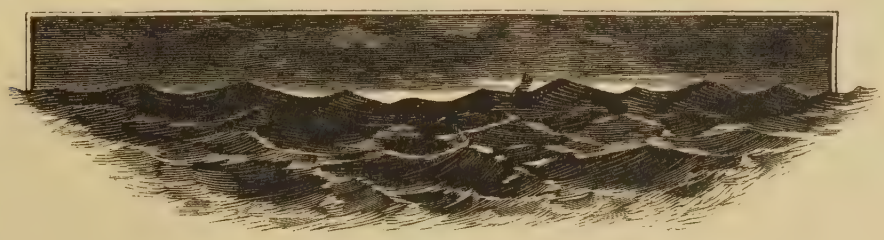
Telegraph, a black Grape, with a good sized, thickly-set bunch, was among the first to ripen, agreeing in this respect with Champion and Moore's Early. The fruit is handsome in appearance, sprightly with a spicy flavor, liked by some, but generally not very acceptable, and we do not think it good enough to cultivate.

The first of September found Delaware in fine eating condition, though it improved for a week after. We find it a very common practice with grape growers to commence sending this variety to market as soon as it is fairly colored and before it has attained sweetness.

The Diamond was very little, if any, later than Delaware, and may be said to ripen with it. The merits of this variety are not yet well known. It is white or light colored, becoming whitish rather than yellow at maturity, at which time it is translucent, with a white bloom. The bunches are large, probably equaling Pocklington in this respect, often shouldered and sometimes double shouldered; berries large, averaging larger than those of the Niagara; skin thin but tough; berries hanging well to the peduncle even when very ripe; flesh melting and juicy, sweet to the center, and the foxiness peculiar to all our native varieties is in the Diamond almost entirely eliminated. It comes nearer to the quality we demand in a first-class exotic Grape than any other native variety with which we are acquainted, except the Dutchess, and in some respects it is its superior. The Diamond equals and even surpasses the Niagara and the Pocklington in appearance, while in quality they fall so far below it as to be unworthy of comparison. The vine is a strong grower with healthy foliage, and a very abundant bearer. The Diamond must assuredly come to the front as the first among the white varieties of our native Grapes. It was originated by JACOB MOORE, the originator of the Brighton, by crossing the Concord with Iona.

Norfolk appears to be a good bearer, fruit high flavored, and apparently well deserves its title of an Early Catawba, which it resembles somewhat in quality; ripened not long after Delaware, but hung well for a long time.

Vergennes seems to have some excellent points, as the vine is quite hardy, and a thrifty grower; fruit sets well and abundantly; berries hang persistently and have a thick skin, which should make it a good shipper and keeper. Flesh melting and sweet; bunches and berries of medium size.



OUR YOUNG PEOPLE.

A HIDDEN FOE.

"And so, poor Dr. Hanson is gone at last," said Mrs. Warren's seamstress, as she laid by her wraps, and then, having settled herself to sewing, continued:

"I have kept his secret for him for many a year, poor man; but now the ban is removed, and I may speak. I have often wished, when feeling almost impelled to give a warning word to some invalid in homes where I was sewing, wished that I could cite his case as a living proof of my words, for where habits of self-indulgence are assailed, warnings too often fall meaningless, unless confirmed by some startling evidence."

"Well, Miss Tucker," exclaimed Pearl, "I must confess you have quite scattered all my ideas as to the arrangement of trimming I was going to suggest for my new gown the moment you came in. What in the world is the secret about Dr. Hanson. I knew he was called penurious and eccentric, but he was intelligent and highly educated, and his patrons had great faith in him. I can't imagine how you, of all others, came to possess his secret, whatever it may have been."

"And no wonder," said Miss Tucker. "Fortunately, I have only button-holes to work this morning, and thus can sew and talk, too, and will tell you all about it."

"I, too, shall be much interested," said Mrs. Warren, "for I have long wondered what special burden the sad-eyed Mrs. Hanson had to carry."

"'Sad eyes,' indeed! I never saw such great, sorrowful, pleading black eyes as her's. Whenever the wide lids are raised, and she looks one full in the face, it's as though the pathos of some tearful story must be shining through them. I have often turned my face away to keep the tears from coming into mine."

"As I was going to say, soon after our mother was taken away from us, Dr. Hanson called, one bitter cold day, to inquire of my sister if I could be spared to assist in his family for two or three weeks, as his wife was 'ailing,' he said. I thought it was a neighborly kindness he was asking, and was quite willing to go. But my father looked grave, knowing, as I afterward learned, that he was owing the Doctor, and fearing that I was to take the place that only an older and more experienced person could properly fill.

"And so it proved. '*Ailing*,' the Doctor had said his wife was. She had been confined to her bed for weeks. Her nurse had left her when her baby was but a few days old. She then had her bed moved to the room that did double duty as dining-room and sitting-room, so that she could oversee a nine-years-old daughter get the meals by the 'parlor-cook stove,' and this economical arrangement allowed of a slow fire being kept in the parlor, so that callers could be shown in there. Of course, the result was that Mrs. Hanson could gain no strength, and the over-taxed little Una, in trying to handle the heavy utensils made for grown people to use, had scalded herself most terribly, and I found her lying beside her mother, who was in tears, though she, herself, lay with dry eyes, moaning and tossing with pain."

"Just think, mamma," interposed Pearl, "that very child is now my school-mate. She has the same pathetic black eyes as her mother's. I'm sure, Miss Tucker, she knows the secret to which you have referred."

"Yes, she knew it even then, poor child. There was a sister, younger, who could do errands from room to room, and look after the smaller children somewhat, the least one of whom being still unable to walk."

"Two babies that couldn't walk!" groaned sympathetic Mrs Warren.

"Yes, two; but I soon had the elder one walking, it only required a little management. Only for Una's accident the Doctor would have allowed his family to get on in that condition as best they could. He came in soon after I got there, and Mrs. Hanson asked him to

give Una an opiate. He said, 'No.' 'Just one dose,' she pleaded, 'to deaden the keenest part of the pain.' 'No, no, no!' he shouted, 'you must be crazy to think I'd give her the infernal stuff!' Then, stooping over Una, he said, 'If you don't quit this fussing and stop worrying your mother, I'll take you right up stairs where she can't hear you, and you'll be all alone, too. Don't you know, child, that you *have* to suffer after being so awkward and careless?' "

"The wretch," exclaimed Pearl.

"Then, going into his office, he brought presently some wine for his wife, who was bathed in exhaustive perspiration—the result of anxiety and continued weakness. 'We must take good care of her,' he said, looking at me, 'so as to get her up from here.'

"'I'll do *my* part,' I answered, rather pointedly, leaving him to infer what he pleased. When again he had left the room, Mrs. Hanson turned to Una, who lay perfectly silent, with clenched fingers and lips compressed, and said, 'Now, my poor child, you may moan and complain as much as you like, it will relieve the tension of your nerves, and will not worry me as much as to have you endure the pain so silently. Papa doesn't understand it as we do, darling.'

"Then, from a bottle which she had sent for from the Doctor's sleeping room, she gave a very small portion of white powder to Una, and sent the bottle hastily back. Before taking the dose, Una had anxiously asked, 'If I take this, won't I have to keep on taking it, like——.' But her mother interrupted her, with' 'O, no, darling, one dose can do no harm, it's only those who take it daily who get so they can't quit it.' Later, when the opiate had somewhat eased her suffering, I heard her say, 'Mamma, we know two men who used to be drunkards and are all right now; if such people can quit off, then why can't those quit who use morphine and opium, if they try real hard?'

"'Because,' said the mother, 'in those rare cases where the will power enables them to abstain from the drug, the brain and nervous system have already become affected in such a way that nervous irritability ensues, followed by a dejection of spirits, which begets all sorts of horrors, and then, if the opiate be not resumed, the mind becomes utterly unbalanced.' "

Here Pearl again interrupted:

"You don't mean to say, Miss Tucker, that this is the usual result of abstaining from the 'opium habit?' "

"I do, indeed, for I've seen it proved in more than one case, and can tell you just how it works. When a man of strong will power becomes suddenly alarmed at the increased dose required to bring up his brain and nerves to his every day working standard, and finds, upon abstaining, that he is already powerless to free himself—already a slave—he is not only exasperated, but feels that he has lost his free manhood, lost the exercise of his own will, lost the ability to curtail an item of heavy expense, and grows to despise, to hate, to *loathe* the very stuff he is obliged to swallow in constantly increased doses, or lose his mental balance."

"Horrors!" cried Pearl, "everybody ought to know about it." "And there should be a warning in every school reader," added Mrs. Warren.

"So I long ago thought," responded Miss Tucker, "for though this matter is more generally understood than in former days, there are still thousands of innocent victims. But I must pass on to the culminating point in my experience with the Hansons. The Doctor became more and more irritable and moody, and one evening, while sitting with his bowed head in his hands, I heard him muttering something about 'this cursed bondage.' He did not come down to breakfast next morning, but answered behind his locked door that he wanted none, and directed us to tell callers that he was sick, but to say to his wife that he was writing, and must not be disturbed. At noon it was the same, and still at night he would not unlock his door to the coaxing appeals of his children. Mrs. Hanson could not hide her anxiety. A burning spot glowed on either cheek. Sitting up in bed, she wrote a note which was passed under his door, with pleading words for papa to read mamma's sweet letter; but no response. For hours he had been steadily pacing the floor, and at nine o'clock Mrs. Hanson called for wraps, and crept up the cold stairway to speak to him herself, but got no answer."

"The poor woman!" sighed Mrs. Warren.

"When again in bed, Mrs. Hanson—

holding my hand, and with those piteously-pleading eyes on my face—said she was sure she could trust me to never speak of what she was about to tell me during Dr. Hanson's life time, 'because,' she added, 'it would ruin his practice, anb then what would become of his family?' I promised.

"'The Doctor,' said she, 'is a victim of the opium habit. It commenced with a prescription in his college days for some chronic trouble that interfered with his studies. (You must understand that morphine and laudanum are prepared from opium, and therefore nearly the same in effect, as also is the active principle of paregoric.) When he ought to have left off the medicine he found his brain sluggish, and instead of stimulating with strong coffee—which is a partial antidote—or giving time for the torpor to wear off, he resumed its use, not realizing what a fearful control it would eventually gain over him, mind and body. Of late he has become so impatient of its control that he has taken barely enough each morning to get him through the round of his patients. Sleepless nights have followed and great depression of spirits, until now his judgment is unsettled. This is the second time he has been in this condition, and so I fully understand it. The horror of such a state is that there is no remedy for it, except to resume the very drug that has caused the trouble, for without it insanity speedily ensues.

"'The other time he was in this condition, I quietly put a large dose in his coffee, which toned up his nervous system temporarily, so that he resumed his usual duties. Now, as you see, he refuses all food lest he get a portion unaware, and I am helpless to relieve him. So I want you to bring Dr, Cutler to me as quickly as possible. I grieve to expose my husband's condition to any one, but it can't be helped.'

"Within a half hour Dr. Cutler had received his cue from Mrs. Hanson, had quickly poured out a portion of her wine, had added morphine to the remainder, and leaving it was tapping at the locked door, saying,

"'I'm Doctor Cutler; I want to consult with you about a patient of yours to whom I've been called—a serious case. Please let me see you a moment.' With that the door opened, and we heard Dr. Cutler say, 'Ah, I see you are an invalid yourself, Doctor,' and presently I was called to take up the bottle of wine and a glass, and heard Dr. Cutler saying, 'Your pulse indicates a stimulus.' I was already so wise that I knew the poor Doctor would soon be better, and rejoiced for his sweet wife's sake.

"Dr. Cutler called again the next morning and tried to convince his professional brother of the folly of attempting to get rid of the 'habit,' unless he put himself into some institution where he could be carefully treated by skilled specialists.

"This is all I know of that part of his history. His friends understand that he went to a distant city to be treated for his health, from whence now comes the news of his death. Poor man, poor man."

"Poor Una!"

"And poor Mrs. Hanson!"

A silence — and then Miss Tucker bustles around, and Pearl exclaims:

"Well, well; I shall never be able to recall how I was going to have my gown trimmed. But I'll go right over and kiss Una, and tell her I love her."

MARIA BARRETT BUTLER.

THE SEVENTEEN YEARS LOCUST.

The sketch herewith shows a species of insect, Cicada, which is commonly called the Seventeen Years Locust, although it does not truly belong to the Locust family. BYRON speaks of these insects as "The shrill Cicadæ of the Pine," for they inhabit trees and shrubs and feed on their juices. These insects are noted for their shrill, loud song, which can be heard for a long distance, but the organs of sound are only perfectly developed in the male. There is a set of membranes and fibers on the under part of the abdomen, which are powerful enough to produce the sound, and even after death, by pulling the fibers and allowing them to contract, it will still be given.

Cicadæ do not leap, as locusts, grasshoppers or crickets. They are larger in-

THE SEVENTEEN YEARS LOCUST—CICADA SEPTENDECIM.

sects, with large bodies and heads, which are almost black. The wings are perfectly transparent, of changeable metallic hues, and delicately veined with black or brown. There are two pairs of wings, the outside longer and broader than the under pair.

The most interesting and peculiar fact in connection with this insect is that it remains in an imperfect state in the ground for seventeen years, and then undergoes a transformation and emerges a perfect insect. These insects live in broods or large families and appear, live their short lives, during which they lay their eggs, and die. The delicate, pearl white eggs are deposited in the small twigs of trees, in which the insect has bored a hole by means of a curiously formed piercer which it has. The injury done to the twigs by boring in them causes them to die and most of them fall to the ground; in about six weeks the eggs hatch, and a small, hairy, yellowish white grub, about one-sixteenth of an inch in length, is produced. The grubs immediately bury themselves in the ground by means of some lobster-like claws which they have, and get to the roots of trees, which they are able to pierce and to draw nourishment from. In this manner they subsist during seventeen years, and then come forth and change into perfect insects, thus completing the circle of their life. Each brood remains in the same region, and appears again and again upon the same space of ground. These broods are in many different parts of the country, but they do not all appear the same year as perfect insects, and so it happens that somewhere in this country almost every year the insects are seen. There are, also, some broods that appear every thirteen years. They often come in such numbers as to do considerable injury to the fruit trees and Grape vines. Many of the places where they regularly appear, and their times of coming are now known, so that the proper means can be used to prevent their doing much damage.

M. E. WHITTEMORE.

EDITOR'S MISCELLANY.

CHARLES M. HOVEY.

No name has been better known among American horticulturists for the last half century than that of Charles M. Hovey, who died at an advanced age at Cambridge, Massachusetts, on the second of September, just passed. He made his influence felt by great enterprise in the seed and nursery business when that branch of trade was comparatively in its infancy in this country. He imported from Great Britain and Europe every fruit that gave promise of value, and industriously brought into his collection a great number of native varieties, and tested them carefully to learn their merits. He was a very thorough pomologist. His seedling Strawberry—Hovey's Seedling—brought out in 1834, gave the first great impetus to Strawberry growing in this country, and made it popular. For many years, at least twenty-five, he edited and published *The Magazine of Horticulture*, at Boston. He was also the author of a work called *Fruits of America*, which, in its time, was a valuable contribution to pomological literature. Mr. Hovey was a prominent member of the Massachusetts Horticultural Society, and of the American Pomological Society from its commencement, and a valuable worker in both. He was not a mercenary man, but one thoroughly in love with his profession from its very nature; he did not regard it merely in the light of dollars and cents, if he had done so he never could have accomplished what he did in it. He enjoyed his work and wished to help and interest others in it. As a motto for his magazine he kept standing on the title page a quotation from the writings of the Prince de Ligne, which may be translated as follows: "I wish to influence the whole world with my taste for gardens. It seems to me that it is impossible that a wicked person can possess it. There is no virtue which I cannot suppose him to have who loves to speak about and work in a garden. Fathers of families, inspire your children with the love of gardening." The sentiment here expressed is a key note to Mr. Hovey's life and work. We have referred particularly to the seedling Strawberry, but Mr. Hovey, by cross-fertilizing, produced many other fine varieties of fruits and a considerable number of flowering plants, these being very beautiful varieties of Camellias, Azaleas, Japan Lilies, Carnations, Pansies, Pelargoniums, Phloxes and an Epiphyllum which was named C. M. Hovey.

Mr. Hovey's life has been a blessing to his country and his age, and his name will be held in honored remembrance by all who knew his worth and works.

JOHN B. MOORE.

John B. Moore, the well known horticulturist, died at Concord, Massachusetts, on the twenty-first of August last, at the age of seventy. Outside of his own State, Mr. Moore had become best known as the originator of Moore's Early Grape, and later, of the Eaton. He is said to have been the finest Rose grower in New England. He was for two terms President of the Massachusetts Horticultural Society, and served for a long term as a member of the Board of Agriculture of his State. He had been a member of the State legislature, and filled various public offices, and in all positions of public trust displayed the same energy and good judgment with which he successfully administered his private affairs. Moore's Early Grape will be a sufficient living and enduring monument to his industry and skill.